Can Apple's iPhone Help to Improve English Pronunciation Autonomously? State of the App

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Abstract. This paper is part of a larger project that examines some of the best-selling iPhone apps designed to learn English pronunciation. Informed by the literature on pronunciation teaching/acquisition, Computer Assisted Pronunciation Teaching (CAPT), Computer Assisted Language Learning (CALL) and Mobile-learning (M-learning), it provides a critical evaluation of the strengths and limitations of iPhone apps designed to improve the user's English pronunciation autonomously. The language learning potential of the apps is weighed up, appraising the aspects of pronunciation addressed by each app (individual phonemes, stress, intonation, et cetera). The paper concludes that iPhone apps have a great potential to practise and improve certain aspects of English pronunciation, such as sound discrimination, the learning of English phonemes, or the pronunciation of individual words, and it explores prospective improvement of existing apps in the future. The paper identifies feedback as one of the main limitations of current apps, while acknowledging that these limitations could be overcome relatively easily with existent technology. It also shows directions for future development of iPhone apps for pronunciation teaching so far neglected, such as the teaching of suprasegmental features or communicative practice.

Keywords: English pronunciation, m-learning, language learning, computer assisted language learning, computer assisted pronunciation teaching, mobile phone applications.

1. Introduction

Pronunciation is one of the most challenging aspects of language to master for language learners, given that it entails not only mental capacities but also psycho-motor and perceptual abilities (MacCarthy, 1978, p. 2; Witt & Young, 1997, p. 1).

Because pronunciation is such a demanding competence, and since it is often compromised in the classroom due to time constraints, technologies seem to be the

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ideal support for pronunciation teaching. CAPT enhances presentation styles and makes materials more 'psychologically accessible' (Pennington, 1996, p. 1), it provides private, stress-free environments which allow unlimited tries and different types of output with different voices and models (Godwin-Jones, 2009, p. 5), as well as the possibility to access virtually unlimited input and to address individual problems (Busà, 2008, p. 165; Neri, Cucchiarini, Strik, & Boves, 2002, p. 1), or the provision of immediate feedback without needing the physical proximity of a teacher (Erben, Ban, & Castañeda, 2009, p. 74).

Today's smart phones are a sort of Swiss-army-knife that proffer countless possibilities, ranging from reading emails to tracking a run via GPS. Thus, why not use them to learn English pronunciation? I have focused on Apple's *iPhone* because it is the one with the widest range of apps devised to tech pronunciation.

2. State of the app

What makes smart phones so versatile is the number of 'apps' at their disposal which add new functions to the phone. However, there seems to be a shortage of apps dealing with English pronunciation. As Colpaert (2004) points out, in the history of CALL, hype has only been achieved when amateurs, not trained professionals, have been able to develop their own applications.

Apps devoted to teaching pronunciation can be divided in two groups: those devised to learn some aspect of pronunciation and those that function as reference tools.

2.1. Reference apps

Some of these apps allow users to look up the pronunciation of a number of words and sentences and hear them pronounced, such as ***Pronounce English AZ***, ***HowJsay, English as it is broken*** or ***FORVO***; while others, like ***iPron***, include a phonemic chart with the symbols and their pronunciation. Some even allow users to record their own pronunciation. Nevertheless, they do not incorporate any activities or practice, nor do users receive feedback on their performance.

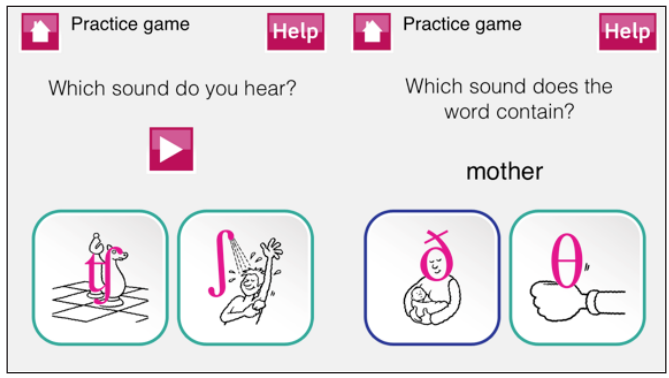
2.2. Pronunciation training apps

These apps teach some aspects of English pronunciation and usually provide a range of activities to practice. The six apps analysed here pursue different goals. Besides fostering sound discrimination, ***English File Pronunciation, Phonetic Focus*** and ***Sounds*** teach the sounds of English with their phonemic symbols, possible spellings and pronunciations, while ***Pronunciation Power*** and ***Enunciation*** focus on articulation, and ***Clear Speech*** deals with discrimination of final sounds, word stress and syllable awareness.

The first three apps introduce the symbols with interactive sound charts which demonstrate their pronunciation in different positions (therefore showing their possible

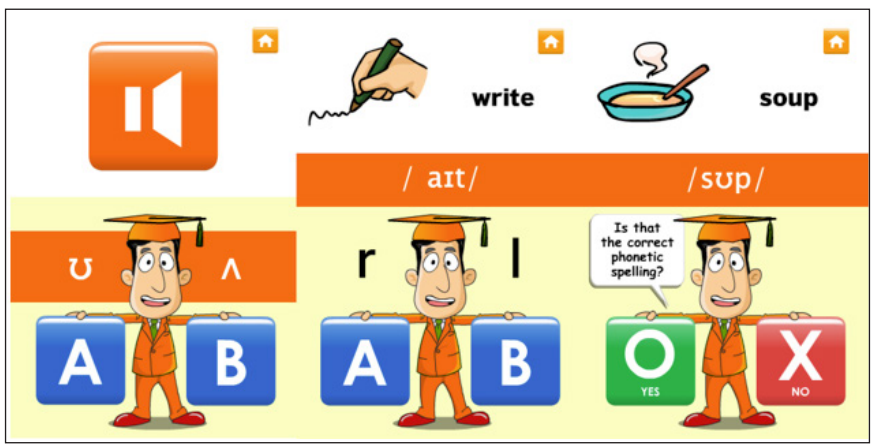
distributions too), and in ***EFP***, also in sentences. ***EFP*** only has two activities, one for sound discrimination and another one to check users' knowledge of the symbols (Figure 1). Just like ***CS*** and ***Sounds***, it keeps a record of users' scores so that they can concentrate on areas they may need to reinforce.

Figure 1.



PF is the app with the widest variety of activities and presentation styles. It includes four tools to learn the sounds and eight activities to practise, such as sound discrimination exercises, tasks aimed at finding missing phonemes, reading transcriptions aloud, or spotting mistakes in phonemic transcriptions (Figure 2). However, the questions always appear in the same order.

Figure 2.



Sounds incorporates three types of activities (Figure 3): *read* (users read phonemic transcriptions and write their orthographic forms), *write* (users read words and

transcribe them phonemically), and *listen* (users listen to words and transcribe them phonemically). It is the app that allows for more user control. Users can select: the model of English (British or American), the particular phonemes they want to practise with, the number of questions, and even choose between three minutes or three lives to complete the game. Moreover, it is the only app that offers the option of buying more packages with extra words and sentences.

Figure 3.

Enunciation and ***Pronunciation Power*** have a different goal; they concentrate on production and illustrate how to articulate English sounds through videos and animations (Figure 4). Moreover, they include recordings of a range of words with the sounds in different positions. ***Enunciation*** also contains the sounds in sentences and it allows users to record their voice. However, even though their aim is to help learners to pronounce the sounds, they do not incorporate any means by which users can truly 'practise' what they produce, nor do they provide any feedback on their performance.

Pronunciation Power, while not targeting phonemes as such, does make use of phonemic symbols. ***Enunciation***, on the other hand, illustrates the pronunciation of /iː/ under the label of "long E", or /eː/ as "A-2", for instance, mixing orthographic spelling with phonemic symbols (Figure 4 on the right). As Pennington (1994) recommends, approaches that encourage equivalence through orthographic or simplified phonemic representations of the L2 sounds should be avoided, since they invite interference with L1 sounds. Reading "long-E" will not mean the same to a Spanish speaker than to an English speaker, for example.

Finally, ***Clear Speech*** is the only app which addresses suprasegmental features. It incorporates two sections devoted to practising sound discrimination of final sounds, one for word stress, and another one for syllable awareness (Figure 5).

Figure 4.

As for the activities dealing with final sounds, ***ball toss*** is a sound discrimination game in which users are presented two minimal pairs below a pin and they have to 'aim for the pin' they hear; and ***stop or flow*** works on the distinction between continuing and stopping sounds, illustrating this contrast with the metaphor of a tap which either closes with stopping sounds, or opens with continuing sounds (as articulators will when producing these).

The two activities that address suprasegmental features are: ***basketball*** and ***push the blob***. ***Basketball*** is devoted to helping users distinguish the number of syllables in words and sentences. Users listen to words and sentences and they have to 'bounce' a ball as many times as syllables they hear, which also helps users understand issues such as vowel reduction, linking and other connected speech phenomena. In ***Push the blob*** users have to recognise the stressed syllables and to 'push the blob through a hole that matches the correct stress pattern'.

Figure 5.

As for the model of English they enforce, apps like ***EFP*** or ***Sounds*** offer users the possibility to choose between British or American English, ***PF*** focuses on British English and the rest on American English. With regard to the type of feedback offered, it is usually a tick or a cross indicating whether the answer is correct or

not. The correct answer is shown and sometimes a sound is also played. In the case of ***PF,*** some activities encourage users to read phonemic transcriptions aloud and hear the correct pronunciation afterwards, thus offering a different type of correction; however, none of the apps measure whether users actually 'pronounce' correctly.

One final issue that is paramount in this type of courseware is that the order of questions is not the same every time users access the app, since otherwise users could memorise the correct answer. Although ***CS, EFP,*** and ***Sounds*** do change the order of questions every time users enter the app, the correct response is always the same.

3. Suggestions for future app development

Despite the enormous potential that some of these apps show in order to help users 'understand' English sounds and phonemes – a pre-requisite and the first step towards self-evaluation and autonomous learning –, more attention should be devoted to suprasegmental features and their functions. Apps could include dialogues illustrating issues such as sentence stress or intonation, or video-quizzes to test a speaker's attitude. Furthermore, apps aimed at production should provide some type of feedback. Apps like ***Dragon Dictation*** could be improved and exploited to this end. This app works with speech recognition software which transcribes everything users say; thus, dialogues could be created where users speak to their phones and see their feedback written. If the machine understands them, the transcription will show what users say, otherwise, users should easily be able to spot what the problem was based on the transcription (e.g., *Can you pass me the* ***B****en, please?* -instead of 'pen'). Users should *always* know why they have made the mistake and, if possible, be given suggestions for improvement (see Levis, 2007; Neri et al., 2002). SIRI, *iPhone's* virtual assistant, which also uses speech recognition, could be similarly exploited for communicative practice.

Additionally, activities could make use of authentic materials in order to check that users really understand what they learn; for instance, they could incorporate a function by which users listened to podcasts and had to look for certain sounds or pronunciation features (elisions, assimilations, etc.).

To conclude, simple explanations illustrating differences between the phonological system of English and that of the users' L1 might be useful, preferably reinforced with sound discrimination practice. Many users will assume that an English /t/ will be the same as a /t/ sound in their L1, or that intonation patterns convey the same information in both languages, when this is not necessarily the case.

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iPhone apps*

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